

Patent claims

1. Method for suppression (10) of echo ($z(t)$) in uplink data ($y(t)$ 1216) coming from a terminal (2,3), with the original or a copy of the downlink data (12-16) and uplink data (19-21) being analyzed to prepare for echo suppression (10), and with uplink data (19-21) in compressed state being modified for echo reduction (10) using the results of the analysis (9) of the downlink data (12-16) and of the uplink data (19-21).
2. Method in accordance with claim 1, characterized in that the non-transcoded state represents the compressed encoding in which the uplink data was transmitted compressed over a mobile radio network.
3. Method in accordance with one of the previous claims, characterized in that, before the analysis (9), the downlink data (12-16) and the uplink data (19-21) is decoded (18) partly or entirely from the transcoded state into a format representing the timing sequence of the signals representing the data (e.g. TDM).
4. Method in accordance with one of the previous claims, characterized in that a copy is made (17a, 17b) of at least downlink data (12-16) to be sent in the direction of the terminal or the original of the downlink data is sent to the terminal, while the other downlink-data (original or copy) is used for encoding (18) and analysis (9) to make possible echo reduction (10) in the uplink data, with only either copy or original of the downlink data being decoded.

5. Method in accordance with Claim 4,
characterized in that the downlink data and the uplink data
will be copied before the analysis.
6. Method in accordance with one of the previous claims,
characterized in that, during echo suppression (10) general
knowledge of relationships between downlink data and required
changes in uplink data is also taken into consideration for
echo reduction on the uplink data using the results of the
analysis (9) of the downlink data.
7. Method in accordance with one of the previous claims,
characterized in that the terminal (2, 3) is a mobile radio
terminal.
8. Method in accordance with claim 7, characterized in that the
terminal is a mobile radio terminal for a cellular mobile
radio network.
9. Method in accordance with one of the previous claims,
characterized in that the propagation delay caused by the
partial decoding of the uplink stream is less than it would
be with a complete decoding of the uplink stream, subsequent
echo suppression and subsequent re-encoding.
10. Device (11) for echo reduction,
especially for executing the method in accordance with one of
the previous claims,
- with a decoding device (18) for transcoding of downlink
data to be sent to a terminal or sent to a terminal and of
uplink data coming from a terminal into a format representing
the timing sequence of the signals representing the data
(e.g. TDM),

- with an analysis device (9) for analysis of the transcoding (18) data for an echo reduction of uplink data
- with an echo reduction device (10) to reduce the echo in uplink data in the non-transcoded state coming from a terminal.